

EPE Newsletter April 2005

Newsletter contents:

**1. EPE 2005: 11-14 September in Dresden, Germany - <http://www.epe2005.com>
On-line Registration and full paper upload available from the website. New deadline for upload: 15 May 2005**

Sponsoring and Exhibition information are available from the Internet site.

2. Nordic PhD Course on Wind Power, Norway 5-11.6.2005: www.elkraft.ntnu.no/Smola2005

3. Contents of Vol. 15 of EPE Journal: <http://www.epe-association.org>

4. Future issues of EPE Journal:

To receive a copy of the issues: become a member of the EPE Association: epe-association@vub.ac.be

5. Technically sponsored conferences

**1. EPE 2005: 11-14 September in Dresden, Germany – <http://www.epe2005.com>
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The Tutorial Programme

The tutorial programme has been set up by a special committee to offer a broad range of high quality seminars. Tutorials will take place on Sunday 11 september. The programme is as follows:

Tutorial No 1: Soft-switching in power full-bridge and three level converters, Ioinovici, Adrian, IEEE Fellow, Holon Academic Institute of Technology, Holon, Israel

Tutorial No 2: Mitigation of Power Converter Interferences: Interaction Models - Mitigation methods - Laboratory work Peter Büchner, Dresden University of Technology (TU Dresden), Electrical Power Engineering Laboratory

Tutorial No 3: Power Electronics for Renewable Energy Systems Johanna Myrzik, Technische Universiteit Eindhoven Electrical Power Systems, The Netherlands Alfred Engler, Institut für Solare Energieversorgungstechnik ISET e.V., Germany Mike Barnes, University of Manchester Department of Electrical Engineering & Electronics, United Kingdom Mike Meinhardt, SMA Technologie AG, Germany (Coordination of Tutorial)

Tutorial No 4: Thermal design of electronic equipment Dr.-Ing. Andrés Lelkes, PM^oDM GmbH (NMB Minebea) Dr. rer. nat. Johannes Adam, Flomerics Ltd.

Tutorial No 5: Matrix Converters Johann Kolar, Frank Schafmeister, Marcelo Heldwein Swiss Federal Institute of Technology (ETH) Zurich, Power Electronic Systems Laboratory

Tutorial No 6: Sliding mode control for switched mode power supplies Mohammad Saman Ahmed, SWECOPIC (Finland) Mikko Kuusma and Kimmo Rauma, Lappeenranta University of Technology (Finland)

Tutorial No 7: Linear and Nonlinear Feedback Control of Switched Power Electronics Devices Joachim Rudolph and Albrecht Gensior, TU Dresden (Germany) Hebertt Sira Ramirez, CINVESTAV-IPN (México) and U. Castilla-La Mancha (Spain)

Tutorial No 8: Multi-Level converters, Chairman: Prof. Steffen Bernet, Inst. of Energy and Automation Technology, Berlin University of Technology

Tutorial No 9: Components Phil Mawby, University of Wales Swansea

An EPE workshop "Design Methodology for Integrated Power System" will be organized as well. A call for proposals is launched:

The design methodology for Integrated Power System is a great issue of numerous research studies concerning Power Electronic Integration. Therefore a workshop on this special issue has been proposed. The concerned topics are: • power semiconductor device modeling • layout and thermal modeling • integrated power converter and device characterization • design methodology for integration of power systems Each contribution corresponds to 15 min of presentation + 5 min of discussion. The contribution has to present last research results on the proposed topics.

Send proposals to Herve.Morel@insa-lyon.fr.

FOR MORE INFORMATION: www.epe2005.com!

Exhibition

EPE conference provides excellent opportunity for companies to announce their latest research centers. Along the years, there is an increasing trend of exhibition participants, proving that growing focus for power electronic industry. Experts use this platform for knowledge exchange and the young engineers get themselves update with the technologies. The Exhibition is still open for new industry partners.

If you would like to know more details please refer to <http://www.epe2005.com> or contact us via e-mail: dmeissner@intercom-dresden.de or epe-association@vub.ac.be

Location

Dresden, the capital of the state of Saxony, is on the one side, a very historical place mixed with high tech industry. The city itself is celebrating its 800 years anniversary in 2006 – the university was founded in 1830 – and within the last 15 years totally renovated keeping its original face. The city as well as the surrounding offer many sight seeing highlights and the local industries are producing high quality goods. Dresden can be reached easily by train and air planes from the major European cities. Driving your own car to Dresden gives you a high flexibility for moving around for sight seeing of this beautiful city.

At EPE 2005, Dresden, we offer you comprehensive and promising technical programs which complete with high level of social events. Sign up now and receive the complete information from us. Hereby, looking forward to seeing you at the EPE 05.

Secretariat

EPE secretariat

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Most recent and additional information:

EPE Association: <http://www.epe-association.org>

The conference : <http://www.epe2005.com>

Also Hotel reservation and a survey of tourism possibilities are offered using the EPE 2005 homepage:
<http://www.epe2005.com>

2. Nordic PhD Course on Wind Power, Norway 5-11.6.2005

This course is intended to provide the necessary background for PhD students in Electrical Engineering on the electrical aspects of wind energy conversion systems covering issues from electrical machines to interconnection and integration of wind power plants into electric utility systems. The course is also aimed at building a network among students in wind energy in the Nordic countries.

For more detailed information about the programme check the website: www.elkraft.ntnu.no/Smola2005

3. Contents of Vol. 15 of EPE Journal

Vol 15 no 2: a series of peer reviewed papers

Enhanced locomotive drive system behaviour applying a cooperative system control for a single voltage source inverter dual induction motor structure, Rosendo Peña-Eguiluz, Instituto Nacional de Investigaciones Nucleares, Mexico; Maria Pietrzak-David, Bernard de Fornel, LEEI-ENSEEIH-NTPT, Toulouse, France

Design and dynamic performance of modified series-parallel resonant converter, H. M. Suryawanshi, S. S. Tanavade, M. R. Ramteke, Dept. of Electrical Engineering, Visvesvaraya National Institute of Technology, India

A simple direct torque fuzzy control of motor induction using space vector modulation, A. El Afia, M. Khafallah, A. Chériti, B. Elmoussaoui, A. Saad, UFR Génie Electrique, Ecole Nationale Supérieure d'Electricité et de Mécanique, Casablanca, Morocco

Bond graph stability analysis of a railway traction system, G. Gandanegara, X. Roboam, B. Sareni, LEEI, UMR, INPT-ENSEEIH, Toulouse, G. Dauphin-Tanguy, Ecole Centrale de Lille, France

Current converter with two-loop maximum power tracking control solar arrays, Chihchiang Hua and Jongrong Lin, National Yunlin University of Science and Technology, Taiwan

Self-sensing active magnetic bearings using a new PWM amplifier equipped with a bias voltage source, Toshiya Yoshida, Yoshiyuki Kuroba, Katsumi Ohniwa, Osamu Miyashita, Tokyo Denki University, Japan

Vol 15 no 3: a series of peer reviewed papers

A new robust experimentally validated phase locked loop for power electronic control, M. C. Benhabib and S. Saadate, Groupe de Recherches en Electrotechnique et Electronique de Nancy (GREEN) CNRS-UMR 7037, Université Henri Poincaré, Nancy 1, France

Optimisation of low voltage power MOSFET components for high current applications, Andreas Lindemann, Chair for Power Electronics, Otto-von-Guericke-Universität Magdebourg, Germany

Robust speed control of a low damped electromechanical system: application to a four mass experimental test bench, Serge Poullain, Patrick Latteux, Jean-Luc Thomas, AREVA T&D, Power Electronics Activities, France; Jocelyn Sabatier, Alain Oustaloup, LAP, ENSEIRB, Université Bordeaux 1, France

An integrated single-stage quasi-resonant power factor correction converter with active clamp circuit, Jun-Young Lee and Gun-Woo Moon, Samsung SDI Co. LTD

A four-level inverter scheme with reduced common mode voltage for an induction motor drive, R. S. Kanchan, P. N. Tekwani, M. R. Baiju, K. Gopakumar, CEDT, Indian Institute of Science, Bangalore, India

A simple stator flux oriented induction motor control, Francesco Cupertino, Giuseppe L. Cascella, Luigi Salvatore, Nadia Salvatore, Politecnico di Bari – DEE, Italy

Vol 15 no 4: a series of peer reviewed papers

Challenges in using the latest generation of IGBTs in traction converters, Mark M. Bakran, Hans-Günter Eckel, Martin Helsper, Andreas Nagel, Siemens AG

Transient and Steady States Thermal Analysis and Simulation of Asynchronous Machine at no-load Condition, Dr.-Ing. Ogbonnaya I. Okoro, Department of Electrical Engineering, University of Nigeria; Prof. Dr.-Ing. Bernd Weidemann, University of Kassel, Germany

Basic Operation Principles and Electrical Conversion Systems of Wind Turbines, Henk Polinder, Sjoerd W.H. de Haan, Johannes G. (Han) Sloopweg, Delft University of Technology, The Netherlands; Maxime R. Dubois, Université Laval, Québec,

A Non-dissipative Reflex Charging Circuit, Yao C. Hsieh, Department of Electrical Engineering, Kao-Yuan Institute of Technology, Taiwan; Chin S. Moo, Chih K. Wu, Jung C. Cheng, Power Electronics Lab, Department of Electrical Engineering, National Sun Yat-sen University, Taiwan, ROC

Influence of repetitions of short-circuits conditions on IGBT lifetime, F. Saint-Eve, S. Lefebvre, SATIE, CNAM, ENS de Cachan; Z. Khatir, INRETS, France

Behavior of synchronous machines subjected to voltage sags of type A, B and E, Frederik Carlsson, Chandur Sadarangani, KTH, Stockholm, Sweden

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5. Technically sponsored conferences

1 to 3 June, 2005, Gdansk, Poland,
4th International Workshop, Compatibility in Power Electronics, CPE 2005

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www.am.gdynia.pl/cpe2005

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Avda. Los Castros s/n
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<http://www.saei.org>

13 & 14 October 2005, Paris/Versailles, France
Civil or Military All-Electric Ship- AES 2005

Contact: AES 2005
SEE
17, rue Hamelin
F-75783 Paris Cedex 16
France
Tel: +33 1 56 90 37 04
Fax: + 33 1 56 90 37 08
<http://www.aes2005.org>

27 – 30 June 2005, St. Petersburg, Russia

POWERTECH 2005
Energy Systems Institute, Irkutsk

130, Lermontov str.
Irkutsk 664033, Russia
Fax: +7 3952 426796
E-mail: conf2005@isem.sei.irk.ru
<http://www.sei.irk.ru/PowerTech2005/>

17-19 October, 2005, Warsaw, Poland
International Conference on POWER ELECTRONICS AND INTELLIGENT CONTROL FOR ENERGY CONSERVATION

Contact: Institute of Control and Industrial Electronics,
Warsaw University of Technology
ul. Koszykowa 75
00-662 Warszawa POLAND
tel.: (+48 22) 628 06 65
fax.: (+48 22) 625 66 33
<http://pelincec.isep.pw.edu.pl>

11-14 September 2005, Dresden, Germany
EPE 2005, 11th European Conference on Power Electronics and Applications

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B-1050 Brussels
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<http://www.epe2005.com>

12-14 June, 2006, Lund, Sweden

NORPIE 2006

Contact: Lund University, Lund Institute of Technology
Department of Industrial Electrical Engineering and
Automation
Lund, Sweden
<http://www.iea.lth.se/norpie2006>

28 – 30 September 2005, Santander (Spain)
SAAEI'2005 - XII Annual Seminar on Automatic Control, Industrial Electronics and Instrumentation

We will see you in Dresden, September 11-14, 2005!

<http://www.epe2005.com>